

## CLAIMS

What is claimed is:

1. A method of automatically initializing a first device on a network comprising:  
requesting configuration information from a second device upon connecting  
the first device to the network;  
delaying a period of time before deciding that no configuration information is  
available;  
providing configuration services to said network if a response to said  
configuration information request is not received from said second  
device within said period of time;  
providing said configuration services to said network if said first device has a  
higher priority than said second device.  
continuously monitoring said network to detect a connection of an additional  
device to said network.

2. The method defined in claim 1, wherein said providing said configuration  
services comprises:  
automatically determining a first network address;  
automatically assigning a second network address;  
automatically assigning a network name;  
automatically correlating said first network address, said second network  
address, and said network name; and  
recording said correlated first network address, said correlated second network  
address and said correlated network name in a table.

1 3. The method defined in claim 2, wherein said first network address comprises a  
2 media access control (MAC) address.

1 4. The method defined in claim 2, wherein said second network address comprises  
2 an Internet Protocol (IP) address.

1 E/ 5. The method defined in claim 2, wherein assigning said network name comprises:  
2 detecting a network name conflict;  
3 resolving said network name conflict; and  
4 recording a code in said table to indicate said network name conflict.

1 6. The method defined in claim 2, wherein said network name is suggested by said  
2 first device.

1 7. The method defined in claim 1, wherein said period of time is varied so as to  
2 prevent race conditions.

1 8. A method of automatically allocating network information comprising:  
2 assigning a network address to a device;  
3 assigning a network name to said device;  
4 correlating said network name with said network address; and  
5 recording said correlated network name and said correlated network address  
6 in a table to allow a user to refer to said device by said assigned network  
7 name independent of said assigned network address.

1 9. The method defined in claim 8, wherein assigning said network name comprises  
2 resolving a network name conflict when said network name is already in use.

1 10. The method defined in claim 9, wherein said network name is suggested by said  
2 device.

1 11. The method defined in claim 8, wherein said network address is assigned using  
2 Dynamic Host Configuration Protocol (DHCP).

1 12. A method of automatically initializing a network comprising:  
2 automatically assigning an address to a device on said network;  
3 automatically assigning a network name to said device on said network;  
4 automatically supplying user and group information across said network; and  
5 automatically determining service capability of said device on said network.

1 13. The method defined in claim 12, wherein supplying user and group  
2 information comprises:  
3 detecting when said device is connected to said network;  
4 sending a first user and group list to said device in response to said device  
5 connecting to said network;  
6 said device comparing said first user and group list with a second user and  
7 group list resident on said device; and  
8 said device determining whether said first user and group list or said second  
9 user and group list is more recent;  
0 receiving a more recent user and group list from said device;  
1 updating said user and group information to reflect said more recent user and  
2 group list; and  
3 propagating said updated user and group information throughout said  
4 network.

1 14. The method defined in claim 13, wherein a time-stamp is used to determine  
2 whether said first user and group list or said second user and group list is more  
3 recent.

1 15. The method defined in claim 13, wherein updating said user and group  
2 information comprises recording said more recent user and group list in clear text.

1 E1 16. The method defined in claim 15, wherein updating said user and group  
2 information comprises encrypting said user and group information prior to  
3 transmission across said network.

1 17. The method defined in claim 12, further comprising:  
2 correlating said network address and said network name; and  
3 storing said correlated network address and said correlated network name in a  
4 table.

1 18. The method defined claim 12, wherein said network name is suggested by said  
2 device.

1 19. The method defined in claim 12, wherein HyperText Transfer Protocol (HTTP) is  
2 used to exchange information.

1 20. The method defined in claim 12, wherein Service Location Protocol (SLP) is  
2 used to exchange information.

1 21. A network comprising:

2 a first device coupled to said network, said first device configured to  
3 automatically  
4 request a first network address;  
5 receive said first network address from a second device coupled to said  
6 network;  
7 provide a network configuration if said first network address is not  
8 received from said second device;  
9 determine its priority level on said network if said first network  
0 address is received from said second device; and  
1 provide said network configuration if said priority level is higher than  
2 a second priority level of said second device.

1 22. The network defined in claim 21, wherein said first device is a networked office  
2 appliance.

1 23. The network defined in claim 21, wherein the first device is further configured  
2 to automatically:

3 assign a second network address;  
4 assign a network name;  
5 correlate said second network address with said network name; and  
6 record said correlated second network address and said correlated network  
7 name in a table.

1 24. The network defined in claim 23, wherein said table further comprises:  
2 a Media Access Control (MAC) address; and  
3 a code to indicate a conflict with said network name.

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25. The network defined in claim 23, wherein said first and second network  
addresses comprise Internet Protocol (IP) addresses.

26. A network comprising:  
a first device configured to  
assign an address to a second device on said network;  
assign a network name to said second device on said network;  
supply user and group information across said network; and  
determine service capability of said second device on said network.

27. The network defined in claim 26, wherein said user and group information  
comprises:  
a list comprising  
a user name;  
a password;  
a group name having a second list of members allowed access to said  
group;  
a time stamp; and  
a character encoding code.

28. The network defined in claim 27, wherein said password is recorded in clear text.

29. A method for automatically discovering services comprising:  
gathering individual service lists;  
creating a master service list accessible by network clients;  
accessing the master service list for a first network device to determine if a  
second network device provides a desired service.

30. The method defined in claim 29 further comprising pushing clients to a resource locator to inform the clients of services provided by a new device.

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